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BEFORE THE
Federal Communications Commission

WASHINGTON, D.C. 20554

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OCT 12 1995

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of

TELEPHONE NUMBER
PORTABILITY

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CC Docket No. 95-116
RM 8535

To: The Commission

DOCKET FILE COPY ORIGINAL

**JOINT REPLY COMMENTS OF AIRTOUCH PAGING AND
ARCH COMMUNICATIONS GROUP**

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TABLE OF CONTENTS

SUMMARY	ii
I. Preliminary Statement	1
II. The Comments Affirm Several of the Commission's Tentative Conclusions and Many of the Major Points Made by AirTouch Paging and Arch	3
III. Number Portability Presents Unique Challenges and Special Problems in the Wireless Environment	8
IV. The Record Confirms the Unsuitability of Mandatory "Interim" Portability Solutions for Wireless Networks .	13
V. 911 and Enhanced 911 Capabilities Require Careful Attention	15
VI. There is no Substantial Support in the Record for Broadscale Geographic Location Portability	16
VII. Other Positions of AirTouch Paging and Arch Should be Adopted	19
VIII. Portability Plans Compared and Contrasted	23

SUMMARY

AirTouch Paging and Arch Communications Group (the "Joint Commenters") have analyzed the comments filed in the number portability docket, and are submitting a joint reply to help summarize the voluminous record. Their reply includes a detailed technical memorandum (the "Jubon Memo") prepared by Jubon Engineering, P.C., which is recognized for its expertise in telecommunications network issues. The Jubon Memo, among other things, analyzes the special considerations regarding number portability applicable to wireless exchange service providers.

The reply cites substantial support in the record for the FCC taking a leading role in fostering a workable, uniform portability plan. The record also establishes (a) the unique aspects of the wireless industry that require special attention in adopting portability standards; (b) the serious limitations of, and problems presented to wireless carriers by, some "interim" portability solutions; and (c) the absence of need for service portability and widespread geographic portability.

The reply highlights the number of commenters who express concern over the potential loss of 911 and enhanced 911 functions with portability, and the special challenges associated with maintaining these emergency functions in a wireless portable number environment.

Although no clear-cut consensus emerges in the comments regarding the portability of non-geographic numbers (i.e., 500

and 900 numbers), AirTouch Paging and Arch conclude it would improve consumer choices if these numbers were to become portable in the near term. The reply also advocates a clear delineation of the federal and state responsibility in order to avoid subjecting carriers to a patchwork of inconsistent implementation schemes.

Finally, the reply compares and contrasts the specific portability plans that have been offered in the docket, based upon the analysis of Jubon Engineering. The reply concludes that AT&T's LRN plan provides a suitable long-term solution provided that adequate attention is paid to the special transition issues affecting wireless carriers.

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ARCH COMMUNICATIONS GROUP**

Arch Communications Group ("Arch") and AirTouch Paging (collectively the "Joint Commenters"), by their attorneys, hereby submit their Joint Reply Comments in the above-captioned proceeding.^{1/} In reply, the following is respectfully shown:

I. Preliminary Statement

1. AirTouch Paging and Arch are substantial providers of narrowband wireless services throughout the United States.^{2/} Based upon the significant potential impact of this proceeding on their businesses, the Joint Commenters filed detailed initial

^{1/} The proceeding was initiated by the release of the Notice of Proposed Rulemaking, FCC 95-284, released July 13, 1995 (the "NPRM").

^{2/} For a complete description of the Joint Commenters' businesses, see Joint Comments of AirTouch Paging and Arch Communications Group filed September 12, 1995 ("AirTouch Paging/Arch Comments") at paras. 1-2.

comments in this proceeding.^{3/} They now have carefully reviewed the comments filed by other interested parties and are submitting this reply to help summarize the record of the proceeding, and to report those instances in which the comments of others have caused an evolution of their thinking on the important issues that are involved.

2. Due to the highly technical nature of certain aspects of this proceeding, AirTouch Paging and Arch have engaged Jubon Engineering P.C. ("Jubon"), whose principal, Jan Jubon, is a well-known expert in the technical, operational, economic, administrative and regulatory aspects of both wired and wireless telephone communications networks worldwide, and a candidate for participation on the North American Numbering Council.^{4/} A brief precis of Mr. Jubon's background is included as Attachment 1 hereto. Jubon has provided technical support on certain specific issues identified by the Joint Commenters, and has aided AirTouch Paging and Arch in analyzing the record, and comparing and contrasting the principal portability proposals that have been

^{3/} Id.

^{4/} As is correctly reflected in the application of Mr. Jubon to participate on the North American Numbering Council, his candidacy is not being sponsored by either AirTouch Paging or Arch, but rather is based upon his independent professional commitment to the development of a publicly beneficial and technically superior telecommunications network. The experience that qualifies Mr. Jubon to be on the Council led AirTouch Paging and Arch to jointly engage Jubon Engineering for assistance in responding to the issues in the portability docket.

presented in the proceeding. The Jubon Memo is included as Attachment 2, and is cited throughout this reply.

**II. The Comments Affirm Several of the Commission's
Tentative Conclusions and Many of the Major
Points Made by AirTouch Paging and Arch**

3. Comments were filed in this proceeding by sixty-five interested parties representing a complete cross-section of the telecommunications industry. The commenters include trade associations,^{5/} federal, state and local governmental agencies,^{6/}

^{5/} See Comments of America's Carrier Telecommunication Association ("ACTA"); the Association for Local Telecommunications Services ("ALTS"); the Association of Public-Safety Communications Officials-International, Inc. ("APCO"); the California Cable Television Association ("Ca. CTA"); the Cellular Telecommunications Industry Association ("CTIA"); the Competitive Telecommunications Association ("CTA"); the Interactive Services Association ("ISA"); the National Cable Television Association, Inc. ("NCTA"); the National Emergency Number Association ("NENA"); the National Exchange Carrier Association, Inc. ("NECA"); the National Telephone Cooperative Association ("NTCA"); the National Wireless Resellers Association ("NWRA"); the Organization for the Protection and Advancement of Small Telephone Companies ("OPASTCO"); the Personal Communications Industry Association ("PCIA"); the Telecommunications Resellers Association ("TRA"); the Teleservices Industry Association ("TIA"); the United States Telephone Association ("USTA"); and the Yellow Pages Publishers Association ("YPPA").

^{6/} See Comments of the Chief Counsel for Advocacy of the United States Small Business Administration ("SBA"); the Florida Public Service Commission ("Fla. PSC"); the General Services Administration ("GSA"); the Illinois Commerce Commission ("Il. PCC"); the Marion County Board of County Commissioners ("Marion Co."); the Missouri Public Service Commission ("Mo. PSC"); the National Association of Regulatory Commissioners ("NARUC"); the New York State Department of Public Service ("Ny. DPS"); the Office of the Attorney General, State of Texas ("Texas AG"); the Public Utilities Commission of Ohio ("Oh. PUC"); the Public Utilities Commission, State of California ("Ca. PUC"); and, the Public Utility Commission of Texas ("Tx. PUC").

the regional bell operating companies,^{7/} interexchange carriers,^{8/} competitive carriers,^{9/} wireless companies,^{10/} paging companies;^{11/} local exchange carriers,^{12/} cable telephone companies,^{13/} an equipment manufacturer,^{14/} and other individuals and companies.^{15/} Since every important segment of the communications business that

^{7/} See Comments of Ameritech ("Ameritech"); Bell Atlantic ("Bell Atlantic"); BellSouth Corporation and BellSouth Telecommunications, Inc. ("BellSouth"); NYNEX Telephone Companies ("NYNEX"); Pacific Bell ("PacBell"); SBC Communication Inc. ("SBC"); and US West, Inc. ("US West").

^{8/} See Comments of AT&T Corp. ("AT&T"); Citizens Utilities Company ("Citizens"); GTE Service Corporation ("GTE"); LDDS Worldcom ("LDDS"); MCI Telecommunications Corporation ("MCI"); Scherers Communications Group, Inc. ("Scherers"); Sprint Corporation ("Sprint"); and U.S. Intelco Networks, Inc. ("USIN").

^{9/} See Comments of Ad Hoc Coalition of Competitive Carriers ("AHCCC"); General Communications, Inc. ("General"); MFS Communications Company, Inc. ("MFS"); Teleport Communications Group Inc. ("TCG"); and Time Warner Communications Holdings, Inc. ("T/W").

^{10/} See Comments of Bell Atlantic/NYNEX Mobile, Inc. ("BA/NYNEX Mobile"); Go Communications Corporation ("GO"); Nextel Communications, Inc. ("Nextel"); Omnipoint Corporation ("Omnipoint"); PCS PrimeCo, L.P. ("PrimeCo"); and U.S. Airwaves Inc. ("USAI").

^{11/} See Comments of AirTouch Paging and Arch Communications Group, Inc. ("AirTouch/Arch"); and Paging Network, Inc. ("PageNet").

^{12/} See Comments of Cincinnati Bell Telephone Company ("Cincinnati Bell"); Pacific Bell ("PacBell"); and TDS Telecom ("TDS").

^{13/} See Comments of Jones Intercable, Inc. ("Jones").

^{14/} See Comments of the Ericsson Corporation ("Ericsson").

^{15/} See Comments of David Kahn ("Kahn"); GVNW Inc./Management ("GVNW"); Telemation International, Inc. ("TI").

will be affected by telephone number portability is well represented in the docket, the Commission can proceed to make informed judgments based upon the record of the proceeding with confidence that all facets of the issues have been considered.

4. The comments reflect an overwhelming consensus that the FCC must take a leading role in order for a rational portability plan to emerge.^{16/} Generally, the commenters support the FCC taking steps to assure the adoption of a workable technical portability plan that will be uniform throughout the United States.^{17/} However, several commenters reached the same conclusion advocated by AirTouch Paging and Arch in their initial comments: **it is important for the Commission to take the time necessary to adopt a well-conceived plan.**^{18/} The issues involved are of sufficient importance to merit careful attention, and there is ample evidence from the marketplace that competition will continue to thrive under existing circumstances in the

^{16/} See Comments of Ameritech, p. 1; Airtouch/Arch, pp. 8-10, ALTS, p. 8; AT&T, p. 1; Bell Atlantic, p. 1; General, pp. 1-2; GTE, p. 21; LDDS, pp. 1-2; U.S. Intelco, p. 3; and US West, p. 4.

^{17/} See Comments of Ad Hoc, p. 9, Ameritech, p. 1; CCTA, p. 9; CTA, p. 5; Ericsson, pp. 2-3; NARUC, pp. 6-7; NCTA, p. 3; Omnipoint, p. 4. There is, however, some disagreement as to whether the technical standards should be adopted by the Commission itself, by a federal advisory committee, or by other industry groups or fora. Compare comments of Bell Atlantic/NYNEX, p. 5 (federal advisory commission); CTIA, p. 12 (industry bodies); SBA, p. 7 (NANP administrator); Cincinnati Bell, p. 7 (NARUC committees); PrimeCo, p. 10 (advisory committee); TRA, p. 13 (multi-sector task force).

^{18/} See, e.g., Comments of AirTouch Paging/Arch, pp. 3-7; NYNEX, p. 3; and USTA, p. 3.

interim.^{19/} With the costs of implementing a long term portability scheme being estimated at between \$1 and \$2 billion,^{20/} and considering that a substantial reconfiguration of the nation's telecommunications network will be required,^{21/} the FCC must take a deliberative approach.

5. The record of the proceeding also provides overwhelming support for other key conclusions of AirTouch Paging and Arch, including: (a) the unique aspects of the wireless industry that require special attention in connection with the adoption of portability standards;^{22/} (b) the serious limitations of and problems presented by so-called "interim" portability

^{19/} For example, BellSouth finds the evidence to be "inconclusive" on whether portability is important to consumers. BellSouth Comments, p. 5. A GTE survey found number portability not to be the dominant factor in the willingness of a customer to change carriers. GTE Comments, p. 6. NYNEX also claims that number portability is not essential for competition to develop. NYNEX Comments, p. 9. PacBell indicates, after extensive study, that the competitive necessity of number portability has been vastly overstated. PacBell Comments, p. 3. SBC claims that price, service quality and services packaging are more important than number retention. SBC Comments, p. 9.

^{20/} See AT&T Comments, p. 33.

^{21/} See Jubon Memo, p. 23. Jubon concludes that "significant reconfiguration of the PSTN will be engendered by number portability", and "a large portion of that reconfiguration will occur within local connectivity and trunking conventions...[s]ignificant cost shifts will occur between various PSTN sectors". Id. at p. 11.

^{22/} See, e.g., Comments of AirTouch/Arch, pp. 12-17; BellSouth, pp. 12, 15-16; Bell Atlantic/NYNEX, pp. 1-4 and PageNet, pp. 3-4.

solutions;^{23/} (c) the absence of need for service portability;^{24/} and, (d) the general superiority of the "N-1" solution as the best long-term portability approach.^{25/} Certain of these consensus positions and the associated comments are discussed in greater detail within.

6. In addition to ratifying many of the conclusions of AirTouch Paging/Arch in the proceeding, the comments of other interested parties have caused some evolution in the AirTouch Paging/Arch position. Based upon the record of the proceeding, AirTouch Paging and Arch now are of the view that: (a) there is no substantial constituency for supporting geographic location portability and, consequently, no reason to subject end users to the disruptions that would result from the decoupling of numbers from geographic locations;^{26/} (b) there is substantial industry

^{23/} See, e.g., Comments of ACTA, p. 2; AT&T, pp. 10-15; Fla. PSC, p. 3; General, p. 4; GO, p. 8; MCI, pp. 20-22; PageNet, p. 9; PCIA, p. 9; and T/W, p. 10.

^{24/} See, e.g., Comments of ACTA, p. 5; Ameritech, p. 8; AT&T, p. 7; CCTA, p. 63; SBA, p. 5; Citizens, p. 6; Fla. PSC, pp. 3-4; MFS, p. 5; NY DPS, p. 5; SBC, p. 9; and TCG, p. 5.

^{25/} See, e.g., Comments of AT&T, p. 22; Cincinnati Bell, p. 8; Citizens, p. 12; Fla. PSC, p. 8; MCI, p. 18; MFS, p. 11; Ny. DPS, p. 8; PrimeCo, p. 7; and T/W, p. 17.

^{26/} AirTouch Paging and Arch were open-minded in their initial comments to the possibility of geographic location portability provided that state boundaries were adopted as the portability domain. It appears, however, that a less radical approach to number portability should be taken at this time based upon the positions of significant industry players. See discussion, infra, at Section VI. Nevertheless, the Joint Commenters asked Jubon Engineering to consider and address the issues involved in location portability in the interest of a complete record. See Jubon Memo, pp. 6-8.

concern over maintaining reliable 911 and enhanced 911 services in a portable number environment which requires special attention by the Commission;^{27/} and (c) the best approach to portability may be a phased-in implementation plan, commencing with the nation's largest markets/carriers, and evolving as market conditions require to include smaller markets and carriers.^{28/} Certain of these evolving positions also are discussed in greater detail within.

III. Number Portability Presents Unique Challenges and Special Problems in the Wireless Environment

7. The initial comments of AirTouch Paging/Arch pointed out several unique aspects of the wireless business that require special attention in connection with any move toward number portability. The record of the proceeding now contains comments by diverse participants in the many facets of the

^{27/} This has a particular bearing in the wireless services, which face unique 911 and enhanced 911 implementation challenges that are made all the more difficult in a portable number environment. See discussion, infra, at Section V. See also Jubon Memo, pp. 13-14.

^{28/} See, e.g., Comments of MFS, p. 8 (recommend starting with the top 100 markets); Ad Hoc, p. 15 (top 100 MSAs within 24 months); ALTS, p. 14 (Tier 1 LECs first); SBA, p. 8; Citizens, p. 8 (100 largest MSAs within 18 months); GVNW, p. 2 (defer implementation in rural areas); NECA, p. 2 (exempt non-Tier 1 companies); OPASTCO passim and p. 10 (exempt small rural telcos); Sprint, pp. 11-12 (top 100 MSAs in 2 years; next 135 in 3 to 4 years); TDS, p. 5 (defer implementation in rural areas); and TCG, p. 12 (top MSAs within 24 months).

wireless business including cellular telephone service,^{29/} wideband PCS,^{30/} narrowband PCS,^{31/} specialized mobile radio,^{32/} and traditional paging.^{33/} Viewed as a whole, the comments from this broad group of wireless service providers serve to highlight the unique difficulties that are presented by the portability of wireless numbers, and the unique circumstances that make portability less urgent in the mobile environment.

8. AirTouch Paging and Arch pointed out in their comments that the wireless business has become highly competitive, and will continue to become more competitive, without widespread number portability.^{34/} Other commenters resoundingly affirm this perception.^{35/} Several factors serve to explain this situation. Wireless carriers are capable of competing for new customers on a variety of bases, including price, quality of signal, extent of coverage area, enhanced

^{29/} Ameritech, AT&T, Bell Atlantic/NYNEX Mobile, BellSouth, CTIA, GTE, PCIA, SBC, Sprint, TDS, and US West are all involved in some aspect of the cellular telephone business.

^{30/} Ameritech, PrimeCo, AT&T, PacBell, BellSouth, GTE, Omnipoint and Go are all involved in wideband PCS.

^{31/} AirTouch Paging, Arch, AT&T, BellSouth, PageNet, SBC, TDS and US West all have interests in narrowband PCS spectrum.

^{32/} Nextel is the largest SMR operator in the nation.

^{33/} Ameritech, AirTouch Paging/Arch, Bell Atlantic, PageNet, SBC, Sprint, TDS, and US West are all involved in providing paging services.

^{34/} AirTouch Paging/Arch Comments, pp. 4-5.

^{35/} See, e.g., Comments of Bell Atlantic/NYNEX, p. 2; BellSouth, p. 12; CTIA, p. 9; and PCIA, p. 5.

service options, equipment functionality and customer service. The variety of possible competitive approaches makes it easier to switch customers. This is particularly true since maintaining telephone numbers may not be as important to customers of wireless services as it is to others. Bell Atlantic/NYNEX and CTIA both point out that the fact that a mobile telephone subscriber pays air-time charges associated with incoming calls makes that subscriber less likely to give out its telephone number. The result is that the predominant use of mobile phones is for mobile-originated calls. Under these circumstances, the change of a telephone number does not present the same issue it does for a wireline subscriber.^{36/}

9. The record of the proceeding also highlights a number of unique technical obstacles to portability in the mobile environment including, but not limited to: (a) the widespread use of IS-41 in lieu of SS#7 technology in wireless networks, which vastly complicates the process of implementing number portability;^{37/} (b) certain limitations in the capabilities of mobile and paging carrier terminals that complicate the process of porting numbers on an interim or a permanent basis;^{38/} (c)

^{36/} Comments of Bell Atlantic/NYNEX, p. 3; and CTIA, p. 10. Mobile subscribers already enjoy a form of "geographic location" portability which also reduces the importance of portability to these subscribers.

^{37/} See Comments of CTIA, pp. 5-6; Jubon Memo, pp. 9-12.

^{38/} See, e.g., Comments of AirTouch Paging/Arch, p. 14; BellSouth, pp. 15-16; PCIA, p. 5; PrimeCo, pp. 5-6; Jubon Memo, p. 22.

seamless roaming arrangements and sophisticated follow-me roaming plans that can be compromised by number portability;^{39/} and (d) certain detailed billing functions and fraud detection methodologies that may be compromised or complicated by number portability in the mobile environment.^{40/}

10. The special considerations pertaining to portability in the wireless environment are well-summarized in Appendix F of the Comments of SBC Communications, Inc. SBC points out in detail the technical problems arising from differences in mobile network technology, the need to radically change long-established roaming standards and processes, and the extent to which the imposition of number portability in a wireless environment may prove to be contrary to customer needs and the Commission's stated goals.^{41/} By virtue of its standing as both a wireline and wireless service provider, the analysis by SBC of the unique problems associated with wireless portability is deserving of special attention.

11. The California PUC, which is known for its activist role in regulating wireline and wireless networks within the state, also perceives special problems when portability is

^{39/} See, e.g., Comments of BellSouth, p. 40; CTIA, pp. 5-6; PrimeCo., p. 5; PCIA, p. 9; SBC, p. 6; and, Jubon Memo, p. 17.

^{40/} See, e.g., Comments of Bell Atlantic/NYNEX, p. 4; BellSouth, p. 40; and, Jubon Memo, p. 24.

^{41/} See SBC Comments, Appendix F.

implemented in a wireless environment.^{42/} This state commission concludes that technical and economic feasibility may inhibit local number portability between wireline and wireless service providers at this time. Given the staunch pro-competition positions that the California PUC has taken in the past, the FCC should give heed to the word of caution from this state regulatory agency.

12. The technical analysis of Jubon Engineering confirms that wireless networks present special challenges in the face of broadscale telephone number portability. The Jubon Memo cites roaming, fraud control, and 911 wireless emergency services as deserving of special attention.^{43/} Additionally, the lesser use of the SS#7 signalling system throughout mobile networks complicates implementation of certain advanced portability schemes.^{44/} Special concerns also arise out of limitations imposed by certain types of interconnection arrangements that are prevalent in the wireless industry.^{45/} These considerations compel the conclusion that:

CMRS participation in ... any long term portability arrangement, will require significant research, analysis, development, deployment and administration ... [and] substantial reconfiguration of CMRS-PSTN

^{42/} See Comments of Ca. PUC, pp. 7-8.

^{43/} Jubon Memo, Executive Summary.

^{44/} Jubon Memo, pp. 9-10.

^{45/} Id. at pp. 10-11.

interconnection and traffic interchange arrangements.^{46/}

Jubon Memo, p. 23.

**IV. The Record Confirms the Unsuitability
of Mandatory "Interim" Portability
Solutions for Wireless Networks**

13. The AirTouch Paging/Arch Comments identified a series of shortcomings inherent in the interim portability solutions that have been implemented to date.^{47/} Multiple other parties have confirmed the serious limitations of the available interim solutions. For example, AT&T, MCI, and Time Warner Communications all express concern over the extent to which any interim solution relying upon call-forwarding techniques contributes to exhaustion of increasingly scarce telephone numbers.^{48/} Other technical problems with ported numbers, including the loss of CLASS functions, degradations of line quality, and related shortcomings, are noted repeatedly in the comments.^{49/} For these and other reasons, a variety of commenters conclude that interim portability solutions cannot

^{46/} Id. at p. 25.

^{47/} AirTouch Paging/Arch Comments, pp. 12-14.

^{48/} See Comments of AT&T, p. 12; MCI, p. 21; Nextel, p. 5; PCIA, p. 9; and T/W, p. 10. See also Jubon Memo, p. 21.

^{49/} See, e.g., Comments of AirTouch Paging/Arch, pp. 12-13; AT&T, pp. 11-12; General, p. 4; MCI, p. 21; Nextel, p. 5; and T/W, p. 10.

sustain a cost-benefit analysis, and could actually impede the implementation of optimum long-term solutions.^{50/}

14. The Commission may feel compelled, nonetheless, to pursue interim solutions to make LEC numbers portable in order to promote competition in this segment of the market. However, the Commission should not extend such measures to the wireless industry. The Jubon Memo contains an extensive analysis of the negative repercussions of subjecting CMRS carriers to an interim mandate,^{51/} and concludes that "inclusion of CMRS exchange carriers in an interim portability plan ... cannot in good conscience be recommended."^{52/}

15. Exclusion is especially appropriate for paging carriers. AirTouch Paging/Arch and PCIA cite technical limitations that make it difficult if not impossible for many paging terminals to accomplish the call-forwarding functions that are involved in most interim portability schemes.^{53/} Since there is no record evidence indicating that telephone number portability is essential to foster competition in the paging industry, the Commission should exempt paging telephone numbers from costly and inefficient interim solutions.

^{50/} See Comments of ACTA, p. 2 (describing interim measures as obstructionist, costly and likely to slow down full-scale implementation); AT&T, p. 15 (describing interim solutions as exacting "exorbitant charges"); Cincinnati Bell, p. 7; MCI, p. 21; Nextel, p. 5; and, PCIA, p. 9.

^{51/} Jubon Memo, pp. 20-22.

^{52/} Id. at p. 22.

^{53/} See Comments of AirTouch Paging/Arch, p. 14; and PCIA, p. 9.

16. Based upon the foregoing, AirTouch Paging and Arch strongly urge the Commission to limit mandatory interim measures to those market segments that are not highly competitive (e.g., the wireline local exchange business). This result would be consistent with the record of the proceeding which resoundingly affirms that the introduction of competition into the local loop is the most important aspect of this proceeding and the one where mandatory portability is likely to have the most direct impact.^{54/}

**V. 911 and Enhanced 911 Capabilities
Require Careful Attention**

17. The Commission tentatively concluded in the NPRM that portability should not be implemented in a manner that sacrifices critical 911 and enhanced 911 services.^{55/} Commenters from all segments of the telecommunications industry resoundingly confirm this tentative conclusion.^{56/} Indeed, some commenters were sufficiently concerned about the negative implications of portability on 911 and enhanced 911 services to make this the sole focus of their comments.^{57/} Under these circumstances, the

^{54/} See, e.g., Comments of ALTS, p. 6; BellSouth, p. 4; CTIA, pp. 8-10; Citizens, pp. 3-5; Fla. PSC, p. 4; LDDS, pp. 1-2; Mo. PSC, p. 1; NARUC, p. 2; NCTA, p. 3; Oh. PUC, p. 1; PCS PrimeCo, pp. 3-4; SBC, p. 5; Sprint, pp. 4-5; TRA, p. 1; and US West, p. 2.

^{55/} See NPRM, para. 41.

^{56/} See, e.g., Comments of Ameritech, p. 10; Ad Hoc, p. 23; ACTA, p. 8; APCO, p. 2; Bell Atlantic, p. 12; Citizens, p. 9; Fla. PSC, p. 7; GTE, pp. 15-18; NENA, p. 2; NCTA, p. 10; TDS, p. 8, USTA, p. 7; and US West, p. 18.

^{57/} See Comments of Marion Co. and the Texas AG.

Commission should be particularly attentive to assuring that portability does not adversely affect these special emergency services.

18. Concern over 911 and enhanced 911 services is particularly critical when dealing with wireless networks. The Commission has devoted special attention to the unique implementation problems involving 911 and enhanced 911 features in the wireless environment.^{58/} The analysis of AirTouch Paging and Arch's technical consultant, Jubon Engineering, confirms the difficulty of maintaining 911 services in a wireless network when telephone numbers become portable.^{59/} Once again, this conclusion argues in favor of a cautious approach to portability in the wireless services. This has caused some to suggest that the current proceeding be limited to the implementation of portability for wireline services, particularly those involving competition to the local exchanges, and to defer the wireless issues to another proceeding.^{60/} All things considered, the Commission may wish to adopt this bifurcated approach.

^{58/} See Emergency Calling Systems, 9 FCC Rcd. 6170, paras. 9-10 (1994).

^{59/} Jubon Memo, pp. 13-14.

^{60/} See BellSouth Comments, p. 12; and SBC, Appendix F.

**VI. There is No Substantial Support in the
Record for Broadscale Geographic
Location Portability**

19. The original comments filed by AirTouch Paging/Arch were open-minded on the prospects for geographic location portability, provided that the portability domain was limited to state boundaries so that implementation could proceed on a rational basis.^{61/} However, based upon the record of the proceeding, AirTouch Paging and Arch now believe that the Commission should conclude that the potential disruption to the telephone network that would result from wide-scale geographic portability cannot be justified in light of the tepid reception that the prospect of location portability received.

20. It is striking to AirTouch Paging and Arch that the logical constituency for total portability (i.e., those companies that are poised to enter new markets or market segments) failed to offer meaningful support for broad-based geographic portability.^{62/} **If those who are on the outside looking in at particular markets or market segments see no substantial benefit to be gained from geographic location portability, the Commission should be extremely reluctant to pursue this option.** Even those who advocate some measure of geographic portability proposed that it be implemented only in a

^{61/} See AirTouch Paging/Arch Comments, pp. 10-12.

^{62/} See, e.g., Comments of Ad Hoc, pp. 3, 13-14; Jones Intercable, p. 2, n. 2; MFS, p. 5; PCS PrimeCo, p. 4; and US Airwaves, p. 4.

relatively confined geographic area.^{63/} Similarly, many of the state regulators deem service-provider portability and not location portability to be the important issue in fostering competition.^{64/}

21. Certain commenters properly note that full-scale location portability would require the wholesale decoupling of telephone numbers from destination addresses, with several adverse consequences. One result could be the loss of 7-digit local dialing capabilities, which is perceived by many as contrary to consumer desires.^{65/} Others highlight the significant potential adverse consequences to consumers if telephone numbers are no longer associated with particular geographic locations, thereby leading to unexpected toll charges or a requirement that the entire system be geared to provide toll

^{63/} See Comments of ACTA, pp. 6, 9 (limit portability to operating tandem area); Ameritech, p. 9 (NPA area); Cincinnati Bell, pp. 3-5 (limited to a rate center area within a particular LATA); Go, p. 7 (geographic portability limited to the local dialing area); Nextel, p. 4 (location portability limited to major metropolitan areas); NYNEX, p. 14 (lesser of NPA or LATA); and Scherers, p. 2 (local calling area).

^{64/} See, e.g., Comments of Il. CC, p. 13; Mo. PSC, p. 1; Ny. PSC, pp. 3-5; and Ca. PUC, p. 5. The Ohio PUC and the Texas PUC generally support geographic location portability, but without any extended discussion of why they consider this to be a valuable competitive opportunity. See, e.g., Comments of Ohio PUC, pp. 3-4; and Texas PUC, p. 2.

^{65/} See, e.g., Comments of MCI, p. 23; NCTA, p. 11.

alert messages with resulting interruptions and/or delays in call completion.^{66/}

22. Again, the technical analysis by Jubon Engineering confirms that broadscale geographic portability would require fundamental changes in the call delivery network. The Jubon Memo observes that ubiquitous ten-digit dialing will become a necessity in a geographically portable environment, and concludes "there is no mandate to forthwith abandon seven-digit dialing patterns as long as convenience has not yielded the floor to confusion."^{67/} Similarly, Jubon's technical report confirms that the disassociation of telephone numbers from geographic locations creates difficulties with respect to the determination of, and consumer notification regarding, toll charges.^{68/} Given the record in this proceeding, such radical change cannot be justified.

**VII. Other Positions of AirTouch Paging and
Arch Should be Adopted
Notwithstanding a Lack of Consensus**

23. On some of the important issues raised by the Commission in the NPRM, no clear industry consensus emerges from the comments.

^{66/} See, e.g., AirTouch Paging/Arch Comments, p. 6; PageNet, pp. 15-16.

^{67/} Jubon Memo, p. 16.

^{68/} Id. at pp. 14-15.

A. Non-Geographic Numbers

24. For example, the Commission asked whether non-geographic telephone numbers (i.e., 500 and 900 service numbers) should be made portable.^{69/} AirTouch Paging/Arch, and many other commenters, advocate early portability for 500 and 900 service numbers to provide additional portable options in which the calling party, rather than the called party, pays for the call.^{70/} On the other hand, some commenters claim that insufficient demand for portability of 500 and 900 numbers has been demonstrated to merit undertaking the costs associated with making these numbers portable.^{71/}

25. On balance, the Joint Commenters believe there is sufficient support in the record for the portability of non-geographic numbers expressed by providers and potential users of these types of numbers for the Commission to conclude that there is a demand. Moreover, AirTouch Paging and Arch discount stated concerns that the existing 800 number portability database cannot easily be adapted to provide portability for 500 and 900 numbers.^{72/} MCI, which is well-versed in the mechanics of the

^{69/} NPRM, Section III.B.

^{70/} See, e.g., Comments of CCTA, p. 7; CTIA, p. 3; Kahn, p. 1; GVNW, p. 10; ISA, p. 3; Jones, p. 2; MCI, pp. 24-28; Sprint, p. 19; TIA, passim; and US Airwaves, p. 4.

^{71/} See, e.g., Comments of Ameritech, p. 13; AT&T, p. 39; Bell Atlantic, p. 22; BellSouth, p. 16; GTE, pp. 24-25; NYNEX, p. 19; and SBC, p. 25.

^{72/} See, e.g., concerns expressed by Ameritech, p. 15; GTE, p. 24; and SBC, p. 27.

800 number database, does not consider implementation of portability for 500 and 900 to present significant problems.^{73/}

26. Finally, AirTouch Paging and Arch believe the fact that the 500 number service is in its infancy makes it inherently easier to implement portability at this stage of the industry development rather than waiting until a future date and having to implement the change after the fact.

B. Role of the States

27. The record fails to reflect any consensus on the nature and extent of state participation in the transition toward greater telephone number portability. The comments run the gamut from those who advocate preemption,^{74/} to those who propose a middle course of shared federal/state responsibility,^{75/} to those who are willing to defer in large measure to the states, even if the result is the adoption of non-uniform implementation schemes.^{76/}

^{73/} See Comments of MCI, pp. 27-29.

^{74/} See Comments of ACTA, p. 6; Bell Atlantic/NYNEX, p. 5 (as to CMRS portability); PCIA, p. 8 (federal action preferable to state action); Sprint, p. 8 (supports aggressive proactive FCC role); TRA, p. 14 (preempt all state initiatives); US West, p. 10 (preempt incompatible solutions).

^{75/} See Comments of Ad Hoc, p. 8; AirTouch Paging/Arch, pp. 10-11; ALTS, p. 17; Bell Atlantic, p. 11; BellSouth, pp. 46-50; PageNet, p. 7; T/W, pp. 23-24, and, USTA, p. 5.

^{76/} See MCI, p. 6 (state commissions should choose the portability model under FCC guidelines); Ca. PUC, p. 4 (defer to states for one year); and TDS, p. 4 (states should be free to choose methods).